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(71) Applicant (for all designated States except US): MOR-  
PHOSYS AG [DE/DE]; Lena-Christ-Str. 48, 82152 Mar-  
tinsried/Planegg (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): TESAR, Michael  
[DE/DE]; Karolingerstrasse 26, 82362 Weilheim (DE).  
JAGER, Ute [DE/DE]; Sammtstrasse 5, 81669 Munchen  
(DE).

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[Continued on next page]

(54) Title: ANTI-CD38 HUMAN ANTIBODIES AND USES THEREFOR

#### Variable Heavy Chain DNA

3077\_VH1B (SEQ ID NO: 1):

(1) CAGGTGCAAT TGGTTCAGAG CGGCGCGGAA GTGAAAAAC CGGGCGCGAG  
(51) CGTGAAAGTG AGCTGCAAAAG CCTCCGGATA TACCTTTACT TCTTATCTTA  
(101) TTAATTGGGT CGGCCAAGCC CTTGGGCAGG GTCTCGAGTG GATGGGCTAT  
(151) ATCGATCCGA ATCGTGGCAA TACGAATTAC GCGCAGAAGT TTCAGGGCCG  
(201) GGTGACCATG ACCCGTGATA CCAGCATTAG CACCGCGTAT ATGGAAGTGA  
(251) GCAGCCTGCG TAGCGAAGAT ACGGCCGTGT ATTATTGCGC GCGTCAGTAT  
(301) ATTTATTTTA TTCATGCTAT GCTTGATTIT TGGGCGCAAG GCACCCGTGT  
(351) GACGGTTAGC TCA

3079\_VH3 (SEQ ID NO: 2):

(1) CAGGTGCAAT TGGTGGAAAG CGGCGCGGCG CTGGTGCAAC CGGGCGGCAG  
(51) CTTGCGTCTG AGCTGCGCGG CCTCCGGATT TACCTTTTCT TCTTATGGTA  
(101) TGCATTGGGT GCGCCAAGCC CTTGGGAAGG GTCTCGAGTG GGTGAGCAAT  
(151) ATCCGTCTCTG ATGCTAGCTG GACCTATTAT GCGGATAGCG TGAAAGGCCG  
(201) TTTTACCAAT TCACGTGATA ATTCGAAAAA CACCCTGTAT CTGCAATGA  
(251) ACAGCCTGCG TGCGGAAGAT ACGGCCGTGT ATTATTGCGC GCGTCAGTAT  
(301) TGGTCTAAGT CTCATGCTTC TGTACTGAT TATTGGGCGC AAGGCACCCCT  
(351) GGTGACGGTT AGCTCA

3080\_VH3 (SEQ ID NO: 3):

(1) CAGGTGCAAT TGGTGGAAAG CGGCGCGGCG CTGGTGCAAC CGGGCGGCAG  
(51) CTTGCGTCTG AGCTGCGCGG CCTCCGGATT TACCTTTTCT TCTTATGGTA  
(101) TGCATTGGGT GCGCCAAGCC CTTGGGAAGG GTCTCGAGTG GGTGAGCAAT  
(151) ATCTATCTCTG ATGCTAGCTG TACCTTTTAT GCGGATAGCG TGAAAGGCCG  
(201) TTTTACCAAT TCACGTGATA ATTCGAAAAA CACCCTGTAT CTGCAATGA  
(251) ACAGCCTGCG TGCGGAAGAT ACGGCCGTGT ATTATTGCGC GCGTAAATAT  
(301) TATCGTTGGC CTTTTCATTA TTTTITGTAT TATTGGGCGC AAGGCACCCCT  
(351) GGTGACGGTT AGCTCA

3100\_VH3 (SEQ ID NO: 4):

(1) CAGGTGCAAT TGGTGGAAAG CGGCGCGGCG CTGGTGCAAC CGGGCGGCAG  
(51) CTTGCGTCTG AGCTGCGCGG CCTCCGGATT TACCTTTTCT TCTTATGGTA  
(101) TGTCTTGGGT GCGCCAAGCC CTTGGGAAGG GTCTCGAGTG GGTGAGCAAT  
(151) ATCTATCTCTG TTTCTAGCTC TACCTTTTAT GCGGATAGCG TGAAAGGCCG  
(201) TTTTACCAAT TCACGTGATA ATTCGAAAAA CACCCTGTAT CTGCAATGA  
(251) ACAGCCTGCG TGCGGAAGAT ACGGCCGTGT ATTATTGCGC GCGTAAATAT  
(301) GGTATTTTAA ATTATGCTGA TGTGTTGGGC CAAGGCACCC TGGTGACGGT  
(351) TAGCTCA

3077\_1\_VH1B (SEQ ID NO: 31):

(1) CAGGTGCAAT TAGTCCAAAG TGGTGGGAA GTGAAAAAC CGGGCGCGAG  
(51) CGTGAAAGTG AGCTGCAAAAG CCTCCGGATA TACCTTTACT TCTTATCTTA

(57) Abstract: The present invention provides re-  
combinant antigen-binding regions and antibodies and  
functional fragments containing such antigen-binding  
regions that are specific for CD38, which plays  
an integral role in various disorders or conditions.  
These antibodies, accordingly, can be used to treat,  
for example, hematological malignancies such as  
multiple myeloma. Antibodies of the invention also  
can be used in the diagnostics field, as well as for  
investigating the role of CD38 in the progression  
of disorders associated with malignancies. The  
invention also provides nucleic acid sequences  
encoding the foregoing antibodies, vectors containing  
the same, pharmaceutical compositions and kits with  
instructions for use. The invention also provides  
isolated novel epitopes of CD38 and methods of use  
therefore.

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